
Training Course On Emotional Intelligence: The Experience of Emotional Intelligence in a Secondary Education Project

Curso de Inteligencia Emocional: la experiencia de la Inteligencia emocional en un proyecto de educación secundaria

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Abstract

The present work analyzes the effectiveness of a program to develop emotional intelligence in secondary education. The *Training Course on Emotional Intelligence* (TCEI) offers the opportunity for secondary students to develop their emotional intelligence cooperatively applying their new knowledge to solve real-world problems. A total of 158 secondary education students participated in this educational experience. A combination of both in-person classes and online classes was used in this program in a virtual campus according to the flipped classroom methodology. The TCEI prepares students to think critically and analytically, to learn about one's own feelings and other people's emotions, and to find and use appropriate emotional learning resources. The results indicate that improvement in emotional intelligence is possible using our program. The implications of these results for incorporating emotional competencies into secondary education curriculum are discussed.

Key words: Emotional Intelligence; secondary education; emotional training; innovation in learning.

Introduction

Secondary education has been experiencing major changes, both in form and content, namely, changes in the new educational paradigm and different articulated systems following the social evolution in our own society and the new European geopolitical order. In order to connect and involve various groups in this context, it is necessary that we consider these changes in our society, particularly in secondary education, both on a personal basis and a collective, social level.

Emotional Intelligence (EI) is the ability to deal with one's own and others' emotions, and there is a growing body of research on various aspects of this topic. Part of EI is the ability to perceive, facilitate and understand emotions, which is a skill essential for a high quality of life and well-being (Billings, Downey, Lomas, Lloyd, & Stough, 2014; Costa & Faria, 2015; Rodríguez, Piñeiro, Regueiro, Estévez, Valle, & Núñez, 2018; Sapién, Piñón, Gutiérrez, & Rubio, 2015; Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007; Zeidner, Shani-Zinovich, Matthews, & Roberts, 2005). Therefore, EI is considered significant in achieving good interpersonal relationships, as well as success in one's life and career.

Defining EI

The term EI was introduced by Salovey & Mayer (1990). They described EI as a set of skills that involve the ability to identify and monitor one's own thoughts, as well as those of others, and using this knowledge to steer one's thinking and behavior. Salovey & Mayer (1990) subdivided EI skills into four categories: (a) ability to understand, evaluate and correctly express an emotion, (b) ability to access and generate feelings as cognitive facilitators, (c) ability to understand emotional information and use the emotional knowledge, and (d) ability to regulate emotions to promote one's growth and welfare. By defining EI and identifying the skills involved in expressing EI, Salovey & Mayer (1990) sought to explain the discrepancies observed in emotional competence among different subjects.

However, following their introduction of the EI construct, later studies debated how EI should be defined (Nelis et al., 2011; Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007). To begin, other researchers have pointed out that the skills that are part of the definition of EI are numerous and much more diversified than Salovey and Mayer originally proposed and depend upon the theoretical models various authors have proposed as well as on the basis of each conception. There are primarily two theoretical models of the EI construct (Herrera, Buitrago, & Cepero, 2017): the mixed models and the skills model. The mixed models, mainly represented by Goleman and Bar-On, combines personality dimensions (e.g., empathy, assertiveness, impulsivity, optimism, etc.) with emotional skills. The evaluation methods primarily rely on questionnaires, scales and inventories that provide a self-perceived index to measure an individual's self-perception of emotional capacity rather than taking objective measurements of the individual's actual capacity.

On the other hand, the skills model of Salovey & Mayer (1990) focuses on processing emotional information and related capacities. In other words, the skills model perceives EI more as a type of intelligence, one that allows the adaptive use of emotions in our cognition. Thus, it is possible for humans to solve problems and adapt effectively to the environment. Additionally, the skills model assesses EI according to tasks of emotional capacity in the same way that the classic Intelligence Quotient (IQ) is evaluated by cognitive tasks, as in the Wechsler tests.

In light of the two existing models, this study selected two different mechanisms for the definition and evaluation of EI: (1) the Schutte Self-Report Emotional Intelligence Test (SSEIT), which is based on the mixed models, to provide a self-perceived index; and (2) the Situational Test of Emotion Management (STEM) and Situational Test of Emotional Understanding (STEU), which are based on the model of ability to assess emotional competencies applied to the academic environment.

It is important to note, at this point, that according to Nelis et al. (2011), trait EI can be improved through training as demonstrated via two experimental studies that showed improvement of emotional competencies from his intervention. The intervention involved the administration of three measures: before the intervention, immediately after the end of the intervention and six months afterward. The results of the first study showed that 18 hours of follow-up e-mail training was sufficient to significantly improve emotional regulation, emotional comprehension and overall emotional competence. These changes led in turn to significant long-term increases in extroversion and acceptance, as well as a decrease in neuroticism. The results of the second study showed that the development of emotional competencies brought positive changes in psychological well-being, subjective health, quality of social relations and employability. In both cases, the authors measured global trait EI and expected and achieved improvements.

In another study (Nelis et al., 2009), the researchers investigated whether it was possible to increase trait EI. Participants in the experimental group received training in EI (four training sessions, two and a half hours each), while participants in the control group received no intervention. The experimental group showed a significant increase in the identification of emotions and emotional management skills. Follow-up measures after six months revealed that these positive changes were maintained over time. However, no significant change was observed in the control group. These findings suggest that EI traits can be improved, and that it therefore makes sense to invest efforts in EI training.

The reason for including the STEM/STEU as a measure is due to the fact that self-reported EI evaluation tools, such as SSEIT, only inform us about the beliefs that respondents have about their own competencies, rather than their real competencies. We added the STEM/STEU measure to overcome this constraint in order to fulfil our objective of developing evaluations that promote validity in the assessment of competencies.

Defining the Training Course on Emotional Intelligence

Mayer, Caruso & Salovey (1999) defined EI as the ability to reason about emotions and to use emotional knowledge to enhance thinking. More specifically, EI includes the abilities to accurately perceive emotions, to access and generate emotions in order to assist thoughts, to understand emotions and emotional knowledge, and to reflectively regulate emotion in order to promote emotional and intellectual growth (Mayer & Epstein, 2000; Mayer, 2009; Mayer, Caruso, Panter, & Salovey, 2012; Mayer, Caruso, & Salovey, 1999; Mayer & Cobb, 2000). Since the introduction of the Bologna Process, the goal of a complete education is not only to teach technical skills, but also other competences, such as team work, communication, presentation, project and time management and the ability to marshal our emotions in pursuit of that end.

The present paper describes an EI program that was created to achieve the broader education of today's students in secondary education (Cabello, Bravo, Latorre, & Fernández-Berrocal, 2014; De la Fuente, Salvador, & Franco, 2010; Krapohl et al., 2014; Meijer, Fossen, Van Putten, & Van Der Leij, 2006; Sainz et al., 2012; Sjöberg, 2001; Van Der Merwe, 2011). Academic competencies are a necessary, but insufficient condition to succeed in life. It is also necessary to have appropriate emotional and social intelligence, which means being competent in such matters as self-motivation, leadership ability, group management, empathy, or social relationships.

In the last decade, EI has played a crucial role in the training of students, supporting them in understanding the world around us, developing them as active citizens who are responsible and capable of innovation in a knowledge-based society. For this reason, in recent years EI measures have been used in numerous countries and cultures to improve academic achievement and life success (Billings et al., 2014; Cela-Ranilla & Cervera, 2013; Curci, Lanciano, & Soletti, 2014; Hen & Goroshit, 2014; Naeem et al., 2014; Olds et al., 2014; Perera & DiGiacomo, 2013; Poropat, 2014; Romero, Master, Paunesku, Dweck, & Gross, 2014). The Training Course on EI (TCEI) is a method that challenges students to apply content emotional knowledge by working cooperatively in groups to seek solutions to real-world problems. These problems are designed to engage students' curiosity and encourage them to take initiatives in learning. TCEI prepares students to think critically and analytically, and to find and use appropriate emotional learning resources. The TCEI approach to learning about one's own feelings and other people's emotions is designed with the following principles (Davies & Mangán, 2008):

- It is based on the self-discovery of emotions and constructivist principles and participation in communities of knowledge, inquiry and learning to generate a true dialogue that is useful, participative and inclusive in groups.
- It promotes critical thinking and problem-solving skills of analysis, evaluation, and active learning by means of interactive technologies and multimedia resources.

- It provides opportunities for reflection and planning in personal learning spaces to study a subject in depth and look for clues, strategies, or possibilities of action.
- It uses role-playing and other experiential methods to authenticate meaningful learning.
- It promotes the active participation of a group of people in a conversation about emotions and key skills, whether they have prior knowledge of each other or not.
- It promotes student-centered and self-directed emotional learning opportunities.
- It provides a highly contextualized learning environment for more authentic emotional learning experiences.
- It involves collaborative learning groups, with division of labor among students who take on specific roles or EI perspectives.
- It promotes and deepens the relationship among a group of people in order to improve the results that they collectively obtain with their actions.
- It supports student autonomy and learning that lasts over time by teaching students how to transfer learning about EI to real contexts.
- It encourages participation, shares knowledge, stimulates creative thinking and innovative ideas, and seeks different performance or acting possibilities in real situations where a group of people feel involved.
- It uses emotional learning to attempt to answer the needs of individual students so that they can capitalize on their strengths and improve their self-advocacy skills.
- It accesses learning resources across a virtual platform.

In summary, the TCEI enables secondary schools to support, guide and assist students in their personal, academic and professional development. This is no easy endeavour, because the challenge itself, in secondary education, is significant. We researched the optimal methods to achieve the purpose of creating situations that bridge students' interests and needs, dynamic activities that facilitate student interaction and encourage the exchange of ideas, opinions, and feelings among students, as well as situations that allow for shared learning that enriches the development of our students.

The TCEI is a creative process in which the groups generate and build their own knowledge in a shared way. It also involves a collaborative process because, even though each participant brings their own ideas, it is the set of ideas which, in a structured, organized, and shared manner, creates new knowledge, according to the rational, emotional, and social aspects of each of the participants.

Method

This study examined whether the TCEI had a significant effect on program participants with the hypothesis that students' participation in the program would improve their EI in three aspects: perceiving emotion, utilizing emotions to resolve problems and managing relevant emotions. The method aimed to analyze the relations be-

tween the program and the variable criteria in order to determine the relative importance of the TCEI in the EI development of a group of students who are completing their training.

Participants

The study included a sample of 158 students enrolled in secondary education in Moldova. With the objective of evaluating the intervention performed, students were randomly distributed between the experimental ($n=78$) and control ($n=80$) groups. All students selected for the survey answered the questionnaire. The mean age of the students was 16.75 years old ($SD\ 1.26$). The percentage of female students was 58.9%. The 158 students were selected since they represent the number of secondary school students of the Moldovan institute that participated in the study.

Measures

This paper selected two different manners for EI definition and evaluation: the SSEIT, which is based on the mixed models, in order to provide a self-perceived index, and the STEM/STEU, which is based on the skills model, in order to evaluate emotional competencies in academic and personal life.

The Schutte Self-Report Emotional Intelligence Test (SSEIT) (Schutte et al., 1998)

The SSEIT, devised by Schutte et al. (1998), has been used in a number of studies. The SSEIT comprises 33 self-referencing statements and requires subjects to rate the extent to which they agree or disagree with each statement on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). A total score is derived by summing up the item responses. The SSEIT assesses perception, understanding, expression, regulation and harnessing of emotion in oneself and others (Austin, Saklofske, Huang, & McKenney, 2004; Besharat, 2007; Bester, Jonker, & Nel, 2013; Chapman & Hayslip, 2005; Gignac, Palmer, Manocha, & Stough, 2005; Schutte et al., 2007). The brevity of the scale and its accumulating reliability and validity evidence makes this scale a reasonable choice for those seeking a brief self-report measure of global EI.

Findings from studies of the SSEIT suggest that it provides a reliable and valid EI trait measure. Test-retest and internal reliabilities are $r = .78$ (according to Schutte et al. 1998), and group differences in score and correlations with other measures have generally been found to align with theoretical expectations.

Potential uses of the scale in theoretical research involve exploring the nature of EI, the effect of EI, and whether EI could be enhanced (Kim, Wang, & Ng, 2010; Ng, Wang, Kim, & Bodenhorn, 2010).

Situational Test of Emotional Understanding (STEU) and Situational Test of Emotion Management (STEM) (MacCann & Roberts, 2008)

To measure EI according to the skills model, the study used further instruments. First, the Situational Test of Emotional Understanding (STEU) measured emotional compe-

tencies as applied to life (MacCann & Roberts, 2008). The STEU is based on Roseman's (2001) model of the emotions system, according to which the 17 most common emotions can be explained by a combination of seven appraisal dimensions.

The STEU (short version) is composed of 25 items that present emotional situations. For each item, participants have to choose what emotion the described situation will most likely elicit. The internal consistency of the measure was .68 and the reliability coefficient was .71 (MacCann & Roberts, 2008).

Further, emotion management was evaluated by the Situational Test of Emotion Management (STEM) (MacCann & Roberts, 2008), which was also developed on the basis of Roseman's (2001) model of emotions system. The STEM (short version) is a 20-item Situational Judgment Test (SJT) that uses hypothetical behavioral scenarios followed by a set of possible responses to the situation. Respondents must choose which option they would most likely select in a "real" situation. Research suggests that the internal consistency of the STEM is .92 and reports a reliability coefficient of 0.68 for this study (MacCann & Roberts, 2008).

Procedure

Prior to administering the three tests, the necessary consent was sought from relevant authorities and all department heads. After consent from the authorities was obtained, informed consent was then sought from the students. Additionally, the study was approved by the Ethics Committee of the relevant authority.

There are three key components of an experimental study design: (1) pre- and post-test design, (2) a treatment group and a control group, and (3) random assignment of study participants.

It is important to emphasize that, as stated above, assignment of participants was entirely random via a computer program that generated a random sequence and randomly distributed the participants among the experimental and control groups. Further, the participants were not told if they were assigned to the experimental or control group, although they were informed that the purpose of the study was to understand EI development. For this reason, the results of EI improvement by the Hawthorne Effect cannot be explained since it is not a form of psychological reactivity in which the subjects of the experimental group show a change in their behavior as a result of the knowledge that they are being studied since both groups received the same information regarding the participation and the content of the research.

Subsequently, the scales were administered in the pre-test phase on an online platform for the experimental and control groups, which put particular emphasis on the voluntary nature of participation and the need for sincerity. On average, approximately 90 minutes were required to complete the tests.

After the data were collected in the pre-test phase, only the experimental group participated in the EI Training over 12 weeks during which time 12 sessions were established for the face-to-face (face) class and 12 for the flip class. At the end of the TCEI, the experimental group received a diploma for their completion of the training. Subsequently, the scales were administered in the post-test phase on an online platform for the experimental and control groups.

Joint Planning

A combination of in-person classes and online classes was used in this program in a virtual campus according to the flipped classroom methodology (12 lessons). Secondly, in each of the plenary in-person lessons (12 lessons and 30 hours in total), the objective of the work-block to be considered was defined. Thereafter, the class was divided into learning sections composed of groups of four to six members, and they were asked about relevant topics. Within each group, a leader was selected by the group to gather the main ideas discussed within the group during a period of approximately 10 or 15 minutes. The roles were interchanged so that all members acted as a leader at one point during the training, and the participants also completed rotations among the topics discussed in each learning section. Finally, the spokesperson stated the findings, and, if necessary, a new round began with questions that could be addressed in each of the created sections. Once these rounds were finished, the spokespeople presented the fundamental ideas provided by everyone who had passed through during the different rounds. At the end, the conclusions were shared in the Virtual Learning Platform via immersive technology. It is important to mention that the number of total sessions held on the platform was 12 and the contents worked out are the following (see Table 1): motivation and self-determination; multiple intelligences; character strengths and virtues; hardiness and optimism; talent and creativity; social and emotional development; emotional self-management skills; multiple perspectives and problem-solving; learning through service; creating a life and career roadmap; develop a self-commitment to growth and development.

The virtual environment is extremely important in the implementation of the program since all face-to-face lessons (with the exception of the presentation in the first session) required a flipped classroom methodology. That is, all participants must attend to the objectives, contents and requirements of each classroom lesson before attending the classroom and, in many cases, the delivery of tasks is scheduled both before and after each face-to-face session. In this way, the fulfilment of the program's own requirements is valued to allow the continuity of each participant through guarantees of using the training. In addition, the e-learning system allows the teacher to review the results of the session to prepare the next lesson according to the pace of learning of the student body.

Design and data analysis

An experimental design was adopted (Campbell & Stanley, 1963) with pre-test and post-test control groups. Consequently, the statistical procedure used the general linear model with repeated measures. In this way, Group (training vs. control) x Time (Time 1 vs. Time 2) repeated measures analyses of variance (ANOVAs) were performed on each measure, with the group as the between-subjects factor and time as the within-subject factor. For each measure, we anticipated a Group x Time interaction, or no significant change in the control group and a significant change in the training group, which would indicate an increase in emotional competence. The time of assessment (pre-test and post-test) was used as the intra-subject factor, and participation in the training (belonging to the experimental or control group) was the inter-subject factor.

All the statistical analyses were conducted using SPSS V.21.0 (IBM, Armonk, USA). Additionally, because the measures used were on different scales, a Z-score was used.

Table 1
TCEI planning schedule

WEEK	FACE CLASS	TARGET	FLIP CLASS
1 Introduction	1st Session	Introduction	-
2 Emotion perception	2nd Session: Self-discovery emotions	Motivation and Self- Determination	1st Session: People feel involved
3 Emotion perception	3rd Session: Promotes critical thinking	Emotion perception and Multiple Intelligences	2nd Session: Summarizing ground rules
4 Utilizing emotions	4th Session: Authentic emotional learning experiences	Utilizing emotions and Character Strengths and Virtues	3rd Session: Skills and qualities scan
5 Utilizing emotions	5th Session: Transfer learning	Utilizing emotions and Hardiness and optimism	4th Session: Verbal quiz and discussion
6 Utilizing emotions	6th Session: Collaborative learning groups	Utilizing emotions and Talent and creativity	5th Session: Innovative ideas
7 Managing emotions	7th Session: Self-directed learning opportunities	Managing emotions and Social and Emotional Development	6th Session: Setting and answering brief
8 Managing emotions	8th Session: Authenticate meaningful learning	Managing emotions and Emotional self- management skills	7th Session: Be prepared to pitch
9 Managing emotions	9th Session: Problem solving skills	Managing emotions and Multiple perspectives and problem-solving	8th Session: Discuss top line ideas
10 Emotional Understanding	10th Session: Strategies of action	Emotional Understanding and Learning through service	9th Session: Feedback on session.
11 Emotion Management	11th Session: Design submission (sketch)	Emotion Management and Creating a Life and Career Roadmap	10th Session: Setting ground rules.
12 Emotion Management	12th Session: Planning in personal learning spaces	Develop an own commitment to growth and development.	11th Session: Implementing plans of action.
13 Conclusion	-	-	12th Session: Keep in touch by virtual campus.

Results

First, sample normality analysis indicated that the population followed a normal distribution. The results of Box's M test did not show homogeneity of the variance covariance matrix on the SSEIT Scale for emotion perception ($m = 11.95$, $p < .08$); utilizing emotions ($m = 13.02$, $p < .00$) and managing emotions ($m = 17.95$, $p < .00$).

In the same way, the results of Box's M test did not show homogeneity of the variance covariance matrix on the STEU ($m = 414.50$, $p < .00$) or on the STEM ($m = 659.42$, $p < .00$). However, Hair et al. (1999) stated that if the control and the experimental groups are of equal size, which was the case in this study, then that factor tends to mitigate the violations of normality.

Second, to test whether there was any difference between the experimental group and the control group at the time of the pre-test, a student's t-test was performed to determine the difference in means. Table 2 shows no significant differences at the time of the pre-test. This finding could mean that both groups began in comparable situations.

Therefore, we concluded that the two groups of students could not be distinguished by the EI level before the program.

Table 2
Student's t-test of means difference (Pre-test)

	t	df	Sig.	Difference	Standard Dev.
Emotion perception	-.715	156	.476	-.598	.836
Utilizing emotions	-.644	156	.521	-.554	.860
Managing emotions	-.142	156	.887	-.138	.965
STEU	.237	156	.813	.059	.251
STEM	.149	156	.882	.036	.247

* $p < .05$, ** $p < .01$.

To assess the program's impact on EI, the scores obtained by both groups were compared prior to (pre-test, week 1) and after the experiment (post-test, week 6). Belonging to one group or the other was the independent factor or variable, and the scores obtained by the students for EI were the criteria or dependent variables.

The values of the inter-subject test (see Table 3) indicated that the means of all the observations differed from 0 because the tests were shown to be significant for inter-section and for group belonging ($p < .005$).

Regarding the implementation of the program, Table 3 shows the test results for intra-subject effects indicating that the effect of the interaction between the time of assessment (pre-test and post-test) and the implementation of the program was significant ($p = < .005$).

The observed power was .83 for the emotion perception scale; .94 for the utilizing emotions scale; .71 for the managing emotions scale and 1.0 for the STEU and STEM scales.

Likewise, the effect size (η^2), proportion of total variability attributable to a factor, or magnitude of the difference between one time or the other, resulting from the interaction between the time of the assessment and the implementation of the program was .05 for the utilizing emotions scale; .07 for the utilizing emotions scale; .04 for the managing emotions scale; .87 for the STEU scale and .73 for the STEM scale.

Table 3

Summary of intra-inter subject univariate ANOVA

	Source	Type III	df	F	Sig.	η^2 partial	Ob. Power
Emotion perception	Intra	231.903	1	8.792	.004	.053	.838
	Intra*Inter	274.283	1	10.399	.002	.062	.893
	Error intra	4114.619	156				
	Inter	505033.028	1	18609.849	.000	.992	1.000
	Error inter	4233.519	156				
Utilizing emotions	Intra	381.519	1	12.721	.000	.075	.943
	Intra*Inter	208.000	1	6.936	.009	.043	.745
	Error Intra	4678.519	156				
	Inter	556692.641	1	21179.751	.000	.993	1.000
	Error inter	4100.334	156				
Managing emotions	Intra	281.644	1	6.466	.012	.040	.715
	Intra*Inter	221.821	1	5.092	.025	.032	.611
	Error Intra	6795.283	156				
	Inter	594435.158	1	17188.698	.000	.991	1.000
	Error inter	5394.933	156				
STEU	Intra	514.067	1	1103.397	.000	.876	1.000
	Intra*Inter	509.042	1	1092.610	.000	.875	1.000
	Error Intra	72.680	156				
	Inter	514.034	1	1103.397	.000	.876	1.000
	Error inter	72.628	156				
STEM	Intra	262.643	1	433.030	.000	.735	1.000
	Intra*Inter	258.032	1	10.399	.002	.732	1.000
	Error Intra	94.618	156				
	Inter	25289.263	1	8371.935	.000	.982	1.000
	Error inter	471.232	156				

Finally, Figures 1 and 2 show the scores obtained in the SSEIT scale and the STEM/ STEU scales by both groups before and after the intervention, as well as a year later. In the post-test, the experimental group had higher scores, whereas the control group, which had no training, did not show any substantial change.

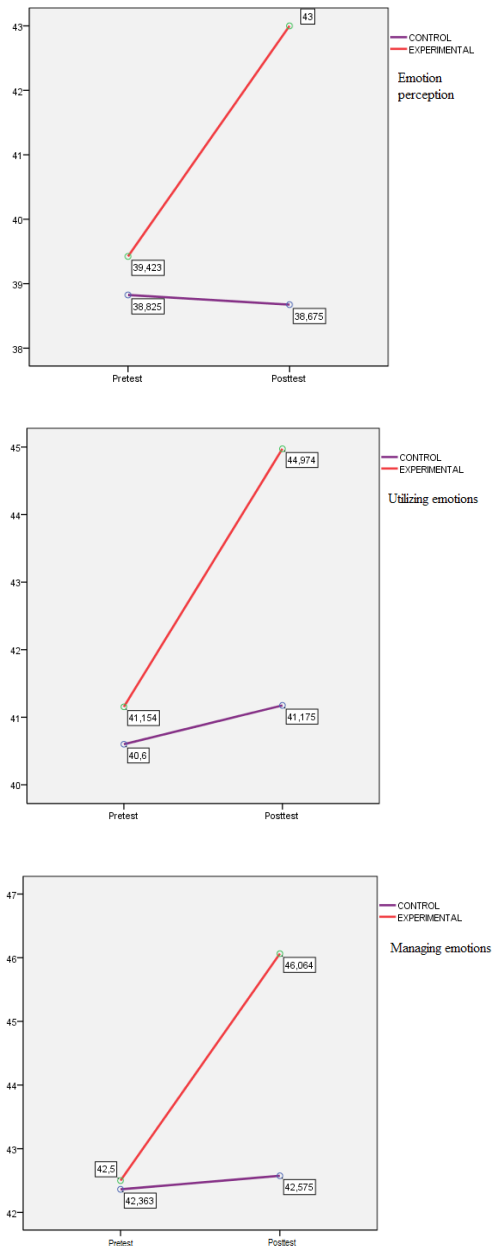


Figure 1. Emotion perception, Utilizing emotions and Managing emotions performance of the groups at pre-test (t1) and post-test (t2).

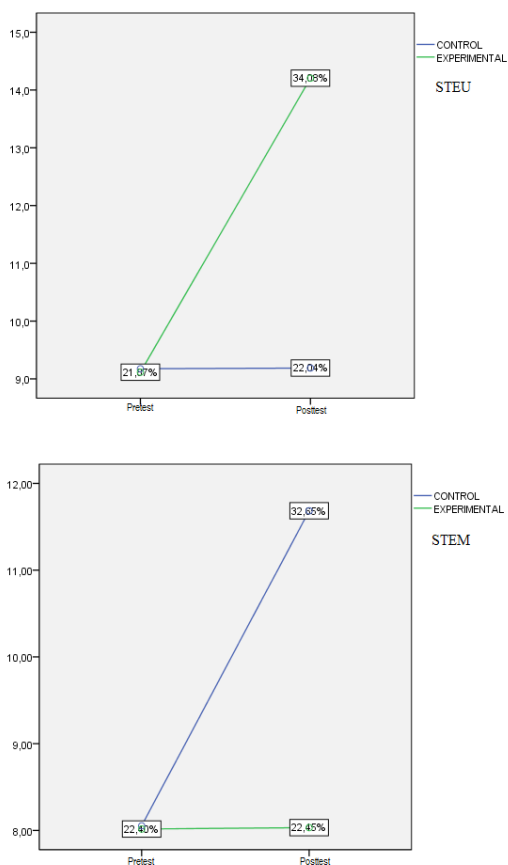


Figure 2. STEU and STEM performance of the groups at pre-test (t1) and post-test (t2).

Discussion

History shows that the concept of competence has always been affected by a change of meaning. Accordingly, the global challenges of the 21st century require interdisciplinary training on both emotional and social skills (Cohen-Scali, 2014; Gardner, 2003; Ledesma, Macbeth, & Cortada, 2008; Mtika & Payne, 2014; Richards & Sheeder, 2014; Weinberg, LeMelle, & Ranz, 2014). Our secondary schools must offer all young people the tools to develop key skills that will prepare them for adult life and to build themselves a culture useful for further learning. Education and training will increasingly become the main vehicle for self-awareness, belonging, advancement and self-fulfillment (Daghbashyan & Harsman, 2014; Evers & Sieverding, 2014; Salamon, Swendsen, & Husky, 2014; Wilson, Sedlacek, & Lowery, 2014).

In recent years, education has been subject to constant legislative and social changes. Achieving the ideal in best practice should be the ambition of all who are involved in educational maintenance. To do so, we must first ascertain the current state of edu-

cation maintenance practice. It is necessary to know what comprises learning knowledge in a learning process and how the school should transmit this knowledge (Costa & Faria, 2015; Cheung, Cheung, & Hue, 2015; Keefer, 2015; Lanciano & Curci, 2014; Waters, Barsky, Ridd, & Allen, 2015). As such, it is necessary to give students the EI necessary for the performance of social or professional tasks they will face in the future in the adult environment, and it is necessary that they possess not only the knowledge, but also the socio-emotional tools to master them (Billings et al., 2014; Galla et al., 2014; Krapohl et al., 2014; Poropat, 2014; Romero et al., 2014). The pedagogical experts of the European Union, in fact, underline the need to put more efforts on socio-emotional learning policies and support the acquisition of EI in the secondary education of young people.

The results of our program indicate that EI can be improved with adequate training in line with other investigations in which it has been shown necessary to promote a better match between the cognitive and socio-emotional needs of secondary students and the education and training we offer. In fact, the landscape of secondary education today includes several researchers of this view (Cohen, Farnia, & Im-Bolter, 2013; Doron, Stephan, & Le Scanff, 2013; Hen & Goroshit, 2014; Mateu-Martínez et al., 2013; Olds et al., 2014; Perera & DiGiacomo, 2013).

The key issue for secondary school curricula will be “learning to change” by embracing new views and adapting to contemporary and future needs of knowledge by developing social and EI (Burrus et al., 2012; Lipnevich, MacCann, Bertling, Naemi, & Roberts, 2012; MacCann, Joseph, Newman, & Roberts, 2014; MacCann, Lipnevich, & Roberts, 2012; MacCann, Wang, Matthews, & Roberts, 2010). For this reason, the *Training Course on Emotional Intelligence* (TCEI) offers the opportunity for secondary students to developing their social and EI, cooperatively applying their new knowledge to solve real-world problems.

Educationalists and training professionals must prepare young people for the world. The increase of international competitiveness requires high cognitive, social and EI, as well as the ability to create, innovate and work in multicultural and multilingual contexts, too. EI in all secondary areas has generated new knowledge requirements (Auburn, 2007; Bollinger, 2003; Hickson, Pichert, Webb, & Gabbe, 2007). Through programs like the TCEI, an education and training strategy in secondary education is put in place to promote the development of social skills and EI based on changes of the 21st century.

To reiterate, incorporating EI into student training programs and university curriculum in secondary education in e-learning environments can help achieve institutional strategic objectives, as it is achieved through the TCEI. It can be achieved by encouraging the creativity of curriculum designers in teaching EI. The use of such emotional training in virtual learning communities has contributed to facilitating the learning process in general, and engagement and social-emotional skills in particular. It improves students’ attitudes toward personal and academic skills, helping students become more motivated to tackle daily challenges. In addition, for teamwork competence, such training also helps students manage difference in opinions with stronger social skills. Emotionally competent people are defined in part as those who regulate their emotions according to a logically consistent model of academic and cognitive functioning. Thus, EI training could be integrated in academic curricula since emotional well-being is considered a predictor of success in personal and professional life (Arias, Granados, & Justo, 2010; Caruso, Mayer, & Salovey, 2002; Liu, Rijmen, MacCann, & Roberts, 2009;

Mayer, Salovey, Caruso, & Sitarenios, 2001, 2003; Roberts, MacCann, Minsky, Jackson, & Schulze, 2008; Roberts, Ralf, & MacCann, 2008).

Secondary schools must ensure students' overall levels of higher qualifications, while offering everyone, young and old, the opportunity to develop their full potential through lifelong learning, regardless of their socioeconomic or personal background (Daghbashyan & Harsman, 2014; Evers & Sieverding, 2014; Kwok, Cheng, & Wong, 2015; Mtika & Payne, 2014; Salamon et al., 2014; Satrustegui, 2011; Wilson et al., 2014).

In conclusion, the process of improving the study programs to adapt them to the changes in both the micro- and macro-environment is an ongoing process. Especially when changes in the job market are frequent, the secondary education services will need to frequently adapt.

Finally, this study showed that the TCEI program enhances the quality of student learning and leads to a higher-level of emotional development. All students instructed in our secondary schools should have the resources to readily develop, in a balanced way, both creative and emotional skills. It is our duty to provide the tools for this twofold development for our students' preparation for a future full of new challenges.

Conclusions

In considering the theoretical implications of our findings, some observations became apparent. Our results suggest the need to include programs such as the TCEI as an important method to increase EI in the secondary education.

The present article has shown that emotional intelligence can be taught in secondary education through appropriate training, such as the one we proposed through our program. Our commitment is to ensure that students in the secondary stage can identify and manage their emotions correctly, as well as the emotions of others. In this way, this emotional domain enables them to face their personal and academic challenges, to strengthen their emotional skills and to direct their lives towards their desired goals.

However, while it is true that the proposed program is effective for the improvement of emotional intelligence within secondary school students, one of the most important limitations of the research is that it would be convenient to extend the sample with a higher number of secondary students from different secondary schools to check if the results are still significant with a higher sample. In the same way, it would be necessary to include a longitudinal study to know if the emotional skills learned are maintained over time, even in spite of the problems and challenges that the students have to overcome. In the same way, it would also be interesting to include a measurement on the transfer of the learned emotional skills to overcoming real life challenges of the students to know if the emotional intelligence training in the experimental group allows these students to obtain good academic performance and a prosperous progression in their studies in higher education.

For these reasons, recommendations for future research include incorporating more longitudinal studies across several multicultural countries and different types of academic levels to obtain solid evidence to show the complexity of the issue of EI improvement in the context of global challenges in 21st century education.

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